DOCUMENT RESUME

ED 448 679 HE 033 690

AUTHOR	Shelley, Mack C., II; Schuh, John H.
TITLE	Are the Best Higher Education Journals Really the Best? A Meta-Analysis of Writing Quality and Readability.
PUB DATE	2000-00-00
NOTE	27p.
PUB TYPE	Reports - Evaluative (142)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Higher Education; Meta Analysis; *Readability; *Scholarly Journals; Selection; *Writing for Publication
IDENTIFIERS	Flesch Reading Ease Formula

ABSTRACT

This study examined the relationship between writing quality, readability, and selectivity in 17 higher education journals. Readability was assessed through two indexes of readability. Data were analyzed using zero-order Pearson product-moment correlations, independent two sample t-tests, and analysis of covariance. Findings show that quality of writing and readability did not vary as a function of selectivity. Journals that were more selective featured significantly more complex forms of writing, and journals with more general topics were significantly more selective than those with a more specialized focus. Two appendixes contain scoring categories for the Flesch Reading Ease index and a list of the publications reviewed for the study. (Contains 3 tables and 30 references.) (SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

02/06/2001 TUE 09:15 FAX 515 294 4942 EL PS DEPT. 001

ED 448 679

Are the Best Higher Education Journals Really the Best?

A Meta-Analysis of Writing Quality and Readability

Mack C. Shelley, II and John H. Schuh

Iowa State University

U.S. DEPARTMENT OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

M. Shelley

N 243 Lagomarcino Hall

Iowa State University

Ames, IA 50011

515-294-6393

515-294-4942 (facsimile)

jschuh@iastate.edu (internet)

HE033690

BEST COPY AVAILABLE

Abstract

This study examined the relationship between writing quality, readability, and selectivity of 17 education journals. Data were analyzed using zero-order Pearson product-moment correlations, independent two sample t-tests, and analysis of covariance. Findings include the following: Quality of writing and readability did not vary as a function of selectivity; journals that are more selective feature significantly more complex forms of writing; and journals with more general topics were significantly more selective than those that have a more specialized focus.

Are the Best Higher Education Journals Really the Best?
A Meta-Analysis of Writing Quality and Readability

Faculty members contribute to the professional literature for a variety of reasons. Some professors use publications to disseminate their findings, thereby contributing to the advancement of their profession (Henson, 1995). For others, their livelihood depends on publishing (Ashford, 1996). Contributing to the literature "... means visibility, esteem and career mobility" according to Bedian (1996, p. 6). Regardless of one's reason for being engaged in the publication process, it is clear that publishing journal articles is a means of improving one's professional status and perhaps prestige. "Clearly, researchers and scholars must know the audience with whom they intend to communicate. A research paper that is difficult to read and comprehend is not likely to be read (presumably published)" (Metoyer-Duran, 1993, p. 517).

Advice is readily available about finding the right journal in which to publish. Murphy (1996) stresses that trying to publish in top journals is well worth the effort if for no other reason than "... the best journals also give the best reviews" (p. 130). Murphy also advises that "... the quality of the journal probably counts more than the quality of the paper" (1996, p. 134). Clearly, his advice, then, is for writers to publish in the best journals.

If all journals are not regarded equally, how does one differentiate between them? Obviously, there is a difference between blind reviews and other selection procedures (Henson, 1995), but beyond the review process, journals are viewed differently by different audiences. One major factor contributing to this is the acceptance rate of a journal. Cabell and English (1998, p. xvii) conclude:

"The journals with the lowest acceptance rate will tend to publish those manuscripts which make the most significant contributions to the advancement of the discipline." Publishing in the right journal is recommended to aspiring authors, although determining the right journals in which to publish can be a problem for the beginning writer. One method of determining what constitutes a top journal is the publication's acceptance rate. Murningham (1996), for example, asserts that top journals accept only 10-20% of the submissions they receive. Such selectivity, then, would reflect a criterion for determining what constitutes a top journal.

Nonetheless, acceptance rates may not necessarily serve as the defining criterion for a publication's prestige. Consider the following example. The Review of Higher Education and The Journal of College & University Food Service both employ a blind manuscript review process. Each uses external and in-house reviewers. They have similar acceptance rates (21-30%, according to Cabell & English [1998]). Which is more prestigious? The answer to this question very well may be a consequence of one's professional opinion, academic discipline, and perhaps other factors idiosyncratic to one's campus.

One potential way of differentiating between journals may be to analyze their quality of writing (Metoyer-Duran, 1993). Is it possible that journals with a more rigorous acceptance rate feature higher quality writing or are easier to read? This is the problem examined in the present study, guided by the following research questions:

1. Is the writing published in journals with a more rigorous acceptance rate of higher quality than the writing found in journals with a less rigorous acceptance rate?

2. Are the articles published in journals with a more rigorous acceptance rate easier to read than those published in journals with a less rigorous acceptance rate?

An affirmative answer to these questions would support the conclusion that journal prestige may be related to the quality of writing of published manuscripts as well as to journals' acceptance rates. If writing quality and readability are closely related to journal acceptance rates, more objective measurements of journal quality can be employed to accompany other commonly used, more impressionistic, reputational measures. It is interesting to note that Metoyer-Duran (1993) found that papers published or accepted for publication had significantly higher mean levels of reading difficulty than papers rejected by a leading scholarly journal in library science; that is, rejected papers were the most readable.

While a substantial body of previous published research exists related to the publication process (e.g., Derricourt, 1996; Henson, 1995), the extant work has not examined the quality of the writing found in a sample of journals. Typically, the existing published research in this area describes the publication process, but does not analyze differences across publications using an empirical framework. This study reports the results of an analysis of the quality of writing contained in a purposively selected sample of articles chosen from 17 journals that report on issues in the field of education. Some of the journals are quite specialized in their focus while others examine broader topics in education; we make that distinction in the ensuing data analysis.

The Theoretical and Conceptual Framework of the Study

Three perspectives provide the intellectual foundation of this study. The first perspective concerns faculty career development. For faculty members at research institutions (evaluated using a Carnegie framework), publishing is essential to career development, particularly in light of one study's finding that 17% of all institutions had reported raising tenure standards in the previous five years (National Center for Education Statistics, 1993). Glassick, Huber, and Maeroff (1997) reported that 54% of respondents in their study of the contemporary professoriate indicated that counting numbers of publications and presentations, weighted by type, generally were used in faculty evaluations at the respondents' institutions. Fairweather (1996) and Alexander-Snow and Johnson (1999) also speak to the importance of publishing generally, and publishing in the "right" journals in particular, as being essential ingredients in the career development of faculty members.

The second perspective employed in this study is that of meta-analysis (Cook, 1992; Glass, McGaw, & Smith, 1981; Hunter, 1982; Miller, 1984; Rosenthal, 1991; Wolf, 1986). Meta-analysis is appropriate as a holistic method for evaluating comparisons across multiple data sources, combining otherwise dissimilar research results across studies, and boosting statistical power by combining typically small samples from separate studies. In this study, meta-analysis logic is applied to the assessment of multiple measures calculated for three replicates of samples of textual material selected from a cross-section of journals addressing education issues.

The third perspective that guided this research adopts the concept of readability as an appropriate means of measuring the quality of writing for the

publications included in this study. Readability is an elusive concept (Smith & Dechant, 1961), but in the main readability depends on average sentence length and word difficulty (Manzo & Manzo, 1990). Metoyer-Duran (1993, p. 517) concludes the following about readability: "Readability, therefore, is one indication of the effectiveness of a piece of writing in conveying the author's intended message to the audience" (citing Tekfi, 1987). Metoyer-Duran also observes, "Because scholarly literature requires a higher level of understanding and attracts a specialized audience, a higher readability score may be acceptable up to a certain threshold" (1993, pp. 517-518).

Analyzing sentence length and word difficulty was central to this study. The primary methods used were Fry's Readability Graph (Fry, 1977; Longo, 1977) and Flesch's Readability Formula (Flesch Reading Ease) (Cramer, 1978; Flesch, 1948; O'Hear & Ramsey, 1990). The scoring categories for the Flesch Reading Ease are included in Appendix A. Additionally, the Flesch-Kincaid Grade Index (Hoke, 1999) was used to analyze the sample data. The Fry and Flesch formulas were chosen because they are appropriate for more advanced levels of text (Richardson & Morgan, 1994; Smith & Dechant, 1961), and they are based on sentence length and word difficulty. Our view is that using multiple methods of analysis enhances the rigor of this analysis; this approach has been used in other similar analyses of readability of scholarly journals (e.g., Metoyer-Duran, 1983) with some variation in the particular indicators chosen.

Methods

Sample and Data Collection

The data analyzed in this study were derived from randomly selected portions of text contained in articles published in 17 purposively selected

journals reporting results in the field of education research. A list of the publications selected for the study is included in Appendix B. Three portions of text, of approximately 100 words apiece, were chosen from the beginning, middle, and end of each selected journal issue. Selection criteria followed the procedures suggested by Fry (1977). The number of sentences contained within each string of text and the average word length employed in those selections were counted. Journals were chosen purposively to provide a mix of specialized and general publications in education research.

Variables Measured

The variables measured for each of the three separate selections of text were number of sentences (SENTCS1, SENTCS2, and SENTCS3, where the suffix 1, 2, or 3 refers to the first, second, or third selection), number of syllables (SYLABLS1, SYLABLS2, and SYLABLS3), the Fry reading level (FRYREAD1, FRYREAD2, and FRYREAD3), the Flesch ease of reading score (FREASE1, FREASE2, and FREASE3), and the Flesch-Kincaid Grade Index (GRLEVEL1, GRLEVEL2, and GRLEVEL3). In addition, selectivity (SELECT) was measured for each journal, defined as the percentage of manuscripts accepted as reported in Cabell and English (1998) or as determined by authors' contact with the relevant editors.

For the analysis of data combining information across all three samples, where the interest was in more general comparisons across all selections for all journals, the variables measured were designated as GENSPEC (general or specialized journal), SENTENCE (number of sentences), SYLLABLE (number of syllables), READING (Flesch ease of reading score), GRADLEVL (Flesch-Kincaid

Grade Index), FRYREAD (Fry reading level), and SELECT (degree of journal selectivity).

Data Analysis

Data analysis was undertaken on two levels. First, the data were evaluated separately for each of the three sections of text collected from each of the 17 journals (n = 17), using zero-order Pearson product-moment correlations, independent two-sample t-tests, and multiple linear regression.

Following this initial analysis of the separate selections of text, more robust models were estimated based on an effective sample size of 51 (three selections of text from each of the 17 journals). This was achieved by combining the three separate samples from each article together into a more holistic overview of how textual complexity is related to journal selectivity, based on the initial finding that the results across the three samples generally are independent of each other. An additional virtue of combining data across the three samples is to triple the sample size, and hence to increase the number of degrees of freedom, with the consequence of producing test results with greater statistical power (that is, more likely to result in statistically significant outcomes). For the combined samples, the statistical methods applied include Pearson zero-order product moment correlations, independent two-sample t-tests, and analysis of covariance. These procedures are appropriate to the research questions at hand, the nature and size of the available dataset, and the level of measurement of the variables.

Findings

Two sets of statistical results inform our findings about the relationships among these variables. First, we examine patterns of correlations and other

relationships among the results for the repeated measures taken on each of the three sections collected from each of the 17 journals. The sample size for this part of the analysis thus is 17, and permits a determination of whether there is consistency across the samples. Second, we evaluate these relationships ignoring the repeated measures and develop more elaborate linear models based on a more robust effective sample size of 51 (17 journals times 3 segments of text each).

Analysis of the Three Different Samples

We evaluate first the results of the analysis based on the repeated measures of n = 17 observations for each of the three samples of text (beginning, middle and end of each journal issue). A Pearson product-moment correlation matrix shows that all of the variables for the first sample (SENTCS1, SYLABLS1, FRYREAD1, FREASE1, and GRLEVEL1) are correlated significantly with each other, with the exception of SENTCS1 and SYLABLS1 (which has a correlation of -.456 and a p-value of .066). These results are summarized in Table 1.

Insert Table 1 About Here

For the first sample of text, from articles near the front of each journal, a greater number of sentences is associated with fewer syllables, a lower rating on the Fry Reading Scale, a higher rating on the Flesch Ease of Reading Scale, and a lower grade level evaluation. In addition, a larger number of syllables is associated with a higher Fry Reading Scale rating, a lower Flesch Ease of Reading Scale value, and a higher grade level evaluation. A higher Fry Reading Scale value corresponds to a lower Flesch Ease of Reading outcome and a higher grade level assessment. Finally, a higher Flesch Ease of Reading result is associated with a lower grade level evaluation.

In contrast, for the second sample of text from articles near the middle of each journal, relationships are much less consistent, in part because GRLEVEL2 is a constant and hence no relationships involving that variable can be estimated. However, for the second sample there are significant bivariate correlations between SYLABLS2 and FREASE2 ($r = -.757$, $p < .001$), SYLABLS2 and FRYREAD2 ($r = .885$, $p < .001$), and FRYREAD2 and FREASE2 ($r = -.743$, $p = .001$). Within the third sample, of text from articles near the end of each journal, there are significant correlations between FREASE3 and SYLABLS3 ($r = -.866$, $p < .001$), FRYREAD3 and SYLABLS3 ($r = .517$, $p = .040$), and GRLEVEL3 and FREASE3 ($r = -.594$, $p = .012$). Clearly, there are different and thus inconsistent patterns of intercorrelations among the variables of interest within each of the three samples.

Additional information may be gained by looking for patterns of consistency across the three samples of text. Statistically significant Pearson product-moment correlations exist for SENTCS3 and SYLABLS2 ($r = .483$, $p = .049$), SENTCS3 and FREASE2 ($r = -.504$, $p = .039$), SYLABLS2 and SENTCS1 ($r = -.546$, $p = .023$), SYLABLS2 and GRLEVEL1 ($r = .550$, $p = .022$), FRYREAD2 and SENTCS1 ($r = -.720$, $p. = .002$), FRYREAD2 and FRYREAD1 ($r = .620$, $p = .010$), FRYREAD2 and FREASE1 ($r = -.504$, $p = .047$), and FRYREAD2 and GRLEVEL1 ($r = .738$, $p < .001$). What is most telling about these correlations across samples is that in only one instance—(FRYREAD2 and FRYREAD1)—is there a significant relationship for the same variable between samples; furthermore, for no variable is there a significant relationship that reaches across all three samples. The simplest reasonable interpretation based on these findings is that these measures of structural complexity do not appear to be consistent across repeated measures

of readability. We conclude further from this basic finding that each passage of text seems to reflect a different context.

None of these variables for any of the three samples taken separately is correlated significantly with selectivity (SELECT). Selectivity thus seems to be independent of these measures of language complexity for each sample.

Independent two-sample t-tests were conducted for each of the three samples to investigate whether there is any difference in measures of language complexity between general and specialized journals. No such comparisons were significant, assuming either equal or unequal variances. Similarly, there was no statistically significant difference for any of the three samples in mean levels of selectivity between general and specialized journals.

In a multiple regression model designed to predict selectivity in the first sample from SENTCS1, SYLABLS1, FRYREAD1, FREASE1, and GRLEVEL1, none of the predictor variables was significant. Based on that outcome, separate regression models for the second and third samples were not estimated.

Meta-Analysis of the Combined Samples

In general, the results presented above suggest that outcomes of the three separate samples of text are independent of each other. This finding implies that it would be appropriate to combine the three samples together to provide a more holistic overview of how textual complexity is related to journal selectivity. An additional virtue of combining results across samples is to triple the sample size, and hence to increase the number of degrees of freedom, thereby resulting in test statistics with greater statistical power (that is, more likely to result in statistically significant outcomes). The variables of interest now are designated as GENSPEC (general or specialized journal), SENTENCE (number of sentences), SYLLABLE

(number of syllables), READING (Flesch ease of reading score), GRADLEVL (grade level), FRYREAD (Fry reading level), and SELECT (degree of journal selectivity). Correlations among these variables are presented in Table 2.

Insert Table 2 About Here

From Table 2, the significant correlations show that higher Flesch ease of reading scores (i.e., easier to read passages) are associated with more sentences and fewer syllables. Higher grade level is correlated significantly with fewer sentences and lower Flesch ease of reading score, and with a greater number of syllables. Higher values of Fry reading scores are associated with fewer sentences, more syllables, lower Flesch ease of reading scores, and a higher grade level.

Independent two-sample t-tests were conducted to compare mean levels of relevant variables between general and specialized journals. A significant difference was found (assuming both equal and unequal variances) for journal selectivity ($p = .011$, assuming equal variances). The mean level of selectivity for general journals (16.3333) is significantly lower than mean selectivity among specialized journals (31.6818). In other words, the average acceptance rate for manuscripts submitted to general journals is about one out of six, versus about one-third for specialized journals.

An analysis of covariance model was estimated for journal selectivity as a function of GENSPEC, SENTENCE, SYLLABLE, READING, GRADLEVL, and FRYREAD. This model permits a simultaneous appraisal of all potentially significant effects (GENSPEC) and covariates (the other, continuous predictors). A summary of the results of that model is presented in Table 3.

Insert Table 3 About Here

From Table 3 it may be seen that although the overall model is significant statistically (p = .030), only SENTENCE (p = .008) is a significant predictor of journal selectivity, controlling simultaneously for the other effects included in the model. Number of sentences has good power (.777) to discriminate among levels of selectivity and accounts for almost 16% of the variance in selectivity (Eta squared=.159), thus demonstrating good effect size. A greater number of sentences is associated with a higher value for selectivity (that is, with a lower acceptance rate). Two other components of the model have reasonably strong power (.406 for GENSPEC, .and .362 for FRYREAD), although they are not significant as measured by p-values.

Conclusions

Five conclusions can be drawn from this study. First, the quality of readability across the 17 journals included in the sample did not vary as a function of selectivity when each sample of text (from the beginning, middle and end of each journal issue) was considered separately. Put another way, the quality of readability in the most selective journals in the sample was no different than the quality of the writing and readability of the less selective journals in the sample, controlling for location of the text within the journal issue.

Second, for three samples combined in a meta-analysis, journals that are more selective tended to feature more complex forms of writing, measured by number of sentences, according to the results of l analysis of covariance. Having fewer sentences in the writing samples that were analyzed is one manifestation

of a greater level of writing complexity. One interpretation of having fewer sentences per higher-quality writing sample is that the writing itself was more sophisticated, which in turn may be a reflection of more complex topics examined in the journals. Alternative explanations for this difference also are possible.

Third, acceptance rates differed significantly between general and specialized education journals. General education journals tended to include articles with broader topics presumably designed to appeal to a wider audience. Specialized education journals have just the opposite content. Whatever the reason, the general journals simply are more selective.

Fourth, within the first sample of articles, correlational analysis produced remarkably consistent statistically significant results among the various measures of writing quality. This sample included articles from the front portion of each issue included in the study. Reasons for this consistency are unknown. It is notable, too, that there was less internal consistency among these measures for the second or third samples, of articles from the middle and end of the journal issues.

Finally, the quality of the general editing, as well as of the copy editing, appears to be very comparable across journals with different levels of selectivity. A variety of reasons may contribute to this editorial consistency, including more sophisticated training of copyeditors, better communications between editors and authors as a consequence of improved technology, and better applications of technology to the publishing process, such as software packages that identify and correct errors in manuscripts.

Limitations and Recommendations for Further Research

A study such as this has several limitations that need to be acknowledged. First, while the study included 17 journals that publish articles on topics related to education, it is entirely possible that a different set of journals in education might have yielded different results. While we think we chose a reasonable set of journals, we make no claims beyond the journals that we included in the study.

A corollary to this first limitation is that different issues of the journals we studied could have yielded different results. In effect, we took a snapshot of the journals included in the study; we did not produce a motion picture. As a consequence, we make no claims about the journals we studied beyond their specific issues included in this report.

Another limitation of this study is that no attempts were made to analyze the substantive content of the journals included in this report. While the quality of the writing of the journals studied proved to be similar, another way of differentiating among these publications could be the content included in them. That could be the focus of another study.

A final limitation of study is the tools of analysis that were chosen. The tools themselves, while well accepted within their discipline, may not have features precise enough to measure subtle differences between texts. If measures that are more precise could have been employed in the study, it is possible that differences may have been discerned. The following observations of Metoyer-Duran (1993) also are instructive:

> Abram cautions that sentence length and word factors "do not cause reading ease/difficulty. Rather they are highly correlated with reading

> ease/difficulty. As such these variables can be used as indicators of changes that would reduce reading difficulty" (citing Abram, 1981, p. 9). Highly readable writing may at times be boring to read because simple sentences may not fully convey the complexities of ideas expressed in scholarly writing (citing Calfee & Drum, 1986) (p. 519).

The limitations of this report lead to recommendations for further study. As is alluded to above, the study included 17 publications. A study of other journals may have yielded different results. Cabell's Directory (Cabell & English, 1998) includes 440 publications, so it is quite obvious that other journals are available for analysis. Additionally, different issues of the same journals we studied could be included in a different inquiry, as is suggested above.

Metoyer-Duran (1993) provides an additional perspective related to prospects for further research:

> As the reading level of the general public and perhaps some specialized publics declines, and as librarians and others become busier and read a smaller percentage of their professional literature, readability might be linked with "browse-ability" and, therefore, scholarly journals should strive for an easier level of reading difficulty and changes in presentation format. With increased interested in electronic publishing, two important questions become: "What is the readability of electronic journals?" and "Is there a difference in readability between electronic and nonelectronic journals? (p. 521).

We chose to stay within education as the academic discipline of focus for this study. The study very easily could be expanded into journals in other disciplines. For example, if the so-called top journal in each of a variety of

disciplines could be identified, would differences be found if one were to study journals from such disciplines as economics, political science, mechanical engineering, and chemistry?

Finally, a variation on this study could endeavor to determine if the writing quality of various authors has changed over the length of their careers. Do authors early in their careers write at about the same level of sophistication compared with latter stages of their careers? To our knowledge, such a study has not been undertaken; conducting one might yield information about the career development of academic writers, an area of inquiry that would add robustness to this general matter of writing quality.

BEST COPY AVAILABLE

References

Abram, M. J. (1981). Readability: Its use in adult education. Lifelong Learning: The Adult Years, 4, 8.

Alexander-Snow, M., & Johnson, B. J. (1999). Perspectives from faculty of color. In R. J. Menges & Associates, Faculty in new jobs (pp. 88-117). San Francisco, CA: Jossey-Bass.

Ashford, S. J. (1996). The struggle for meaning. In P. J. Frost & M. S. Taylor (Eds.), Rhythms of academic life (pp. 119-127). Thousand Oaks, CA: Sage.

Bedian, A. G. (1996). Twelve suggestions for optimizing career success. In P. J. Frost & M. S. Taylor (Eds.), Rhythms of academic life (pp. 3-9). Thousand Oaks, CA: Sage.

Cabell, D. W. E., & English, D. L. (Eds.). (1998). Cabell's directory of publishing opportunities in education. Beaumont, TX: Cabell Publishing.

Calfee, R., & Drum, P. (1986). Research in teaching reading. In M. C. Wittrock (Ed.), Handbook of research on teaching (pp. 804-849). New York, NY: Macmillan.

Cook, T. D. (1992). Meta-analysis for explanation: A casebook. New York, NY: Russell Sage.

Cramer, E. H. (1978). A quick guide to readability formulas. Curriculum Review, 17(5), 416-417.

Derricourt, R. (1996). An author's guide to scholarly publishing. Princeton, NJ: Princeton University Press.

Fairweather, J. S. (1996). Faculty work and public trust. Boston, MA: Allyn and Bacon.

Flesch, R. (1948). A new readability yardstick. Journal of Applied Psychology, 32, 221-233.

Fry, E. (1977). Fry's readability graph: Clarifications, validity, and extension to level 17. Journal of Reading, 21, 242-252.

Glass, G. V., McGaw, B., & Smith, M. L. (1981). Meta-analysis in social research. Beverly Hills, CA: Sage.

Glassick, C. E., Huber, M. T., & Maeroff, G. I. (1997). Scholarship assessed: Evaluation of the professoriate. San Francisco, CA: Jossey-Bass.

Henson, K. T. (1995). The art of writing for publication. Boston, MA: Allyn and Bacon.

Hoke, B. L. (1999). Comparison of recreational reading books levels using the Fry readability graph and the Flesch-Kinkaid grade level. Unpublished master's thesis. Union, NJ: Kean University.

Hunter, J. E. (1982). Meta-analysis: Cumulating research findings across studies. Beverly Hills, CA: Sage.

Longo, J. A. (1977). Validation of the Fry readability graph, levels 13-17. ERIC document ED210634.

Manzo, A., & Manzo, U. (1990). Content area reading: A heuristic approach. Columbus, OH: Merrill.

Metoyer-Duran, C. (1993). The readability of published, accepted, and rejected papers appearing in College & Research Libraries. College and Research Libraries, 54(6), 517-526.

Miller, T. (Ed.). (1984). Meta-analysis in special education research [Special issue]. Journal of Special Education, 18 (1), 9-92.

Murningham, J. K. (1996). Revising and resubmitting: Author emotions, editor roles, and the value of dialogue. In P. J. Frost & M. S. Taylor (Eds.), Rhythms of academic life (pp. 135-142). Thousand Oaks, CA: Sage.

Murphy, K. R. (1996). Getting published. In P. J. Frost & M. S. Taylor (Eds.), Rhythms of academic life (pp. 129-134). Thousand Oaks, CA: Sage.

National Center for Education Statistics. (1993). 1993 National study of postsecondary faculty. Washington, DC: U.S. Department of Education.

O'Hear, M. F., & Ramsey, R. N. (1990). A comparison of readability scores and student perceptions of reading ease. ERIC document ED321244.

Richardson, J. S., & Morgan, R. F. (1994). Reading to learn in content areas (2nd ed.). Belmont, CA: Wadsworth.

Rosenthal, R. (1991). Meta-analytic procedures for social research (rev. ed.). Newbury Park, NJ: Sage.

Smith, H. P., & Dechant, E. V. (1961). Psychology in teaching reading. Englewood Cliffs, NJ: Prentice-Hall.

Tekfi, C. (1987). Readability formulas: An overview. Journal of Documentation, 43, 262.

Wolf, F. M. (1986). Meta-analysis: Quantitative methods for research synthesis. Beverly Hills, CA: Sage.

Table 1

Zero-Order Pearson Product-Moment Correlations For Each Pair of Variables Measured in Sample 1 (Pearson Correlation is Shown, with p-Value)

	SENTCS1	SYLABLS1	FRYREAD1	FREASE1
SYLABLS1	-.456			
	.066			
FRYREAD1	-.759	.868		
	.001	<.001		
FREASE1	.557	-.963	-.878	
	.020	<.001	<.001	
GRLEVEL1	-.919	.490	.719	-.578
	<.001	.046	.002	.015

Table 2

Correlations Among Variables Combined Across Samples (Pearson Correlation is Shown, With p-Values)

	SAMPLE	SENTENCE	SYLLABLE	READING	GRADLEVL	SELECT
SENTENCE	-.184					
	.195					
SYLLABLE	-.025	-.226				
	.862	.111				
READING	-.082	.434	-.874			
	.567	.001	<.001			
GRADLEVL	.170	-.655	.393	-.456		
	.233	<.001	.004	.001		
SELECT	.000	.199	.009	.005	.134	
	1.000	.162	.948	.970	.347	
FRYREAD	.220	-.495	.816	-.784	.673	.101
	.133	<.001	<.001	<.001	<.001	.493

Table 3

Results of Analysis of Covariance Model for Selectivity as a Function of Contextual Factors and Journal Specificity for the Three Samples Combined

Source	df	F	Sig.	Eta Squared	Observed Power
Corrected Model	6	2.627	.030	.278	.798
Intercept	1	1.166	.287	.028	.184
GENSPEC	1	3.108	.085	.070	.406
SENTENCE	1	7.773	.008	.159	.777
SYLLABLE	1	0.637	.430	.015	.122
READING	1	0.143	.707	.003	.066
GRADLEVL	1	2.703	.108	.062	.362
FRYREAD	1	0.729	.398	.017	.133
Error	41				
Corrected Total					

R^2 = .278 (Adjusted R^2 = .172)

Appendix A: Scoring Categories for Flesch Reading Ease

Score	Reading Difficulty	Grade Level
90-100	Very easy	4th grade
80-90	Easy	5th grade
70-80	Fairly easy	6th grade
60-70	Standard	7th-8th grade
50-60	Fairly difficult	Some high school
30-50	Difficult	High school and college
0-30	Very difficult	Minimum of college

Source: Metoyer-Duran, 1993, p. 522.

Appendix B: Publications Included in this Study

Publication Title	Publication Issue
College and University	Winter, 1998
College Board Review	Spring, 1998
College Placement Council Journal	January, 1998
Community College Review	Winter, 1998
Harvard Educational Review	Spring, 1998
NASPA Journal	Winter, 1998
NACDA Journal	Spring, 1998
North Central Association Quarterly	Winter, 1997
Journal of College Student Development	March/April, 1998
Journal of College and University Law	Fall, 1997
Journal of Educational Research	March/April, 1998
Journal of Student Financial Aid	Winter, 1998
Planning for Higher Education	Winter, 1998-99
Review of Educational Research	Summer, 1997
Review of Higher Education	Spring, 1998
The Journal of College and University Student Housing	Vol. 26, No. 2 (no date provided)
The Journal of Higher Education	March/April, 1998